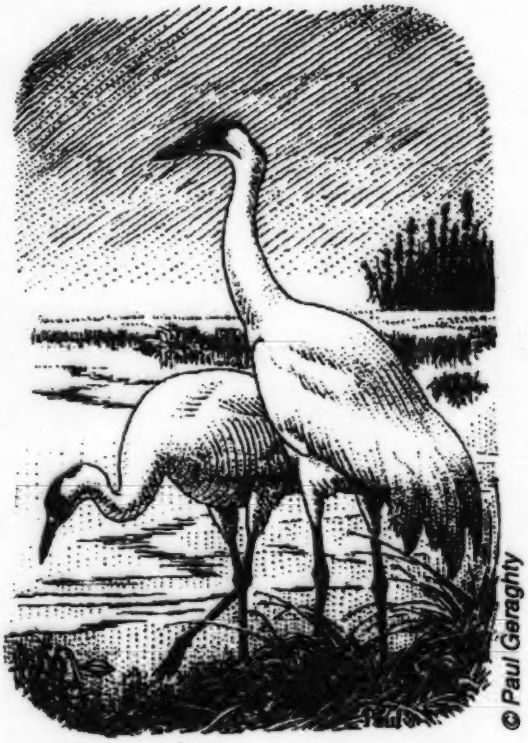
SASKATCHEWAN

Whooping Crane

Status: Endangered

(Grus americana)

Species at Risk



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Description

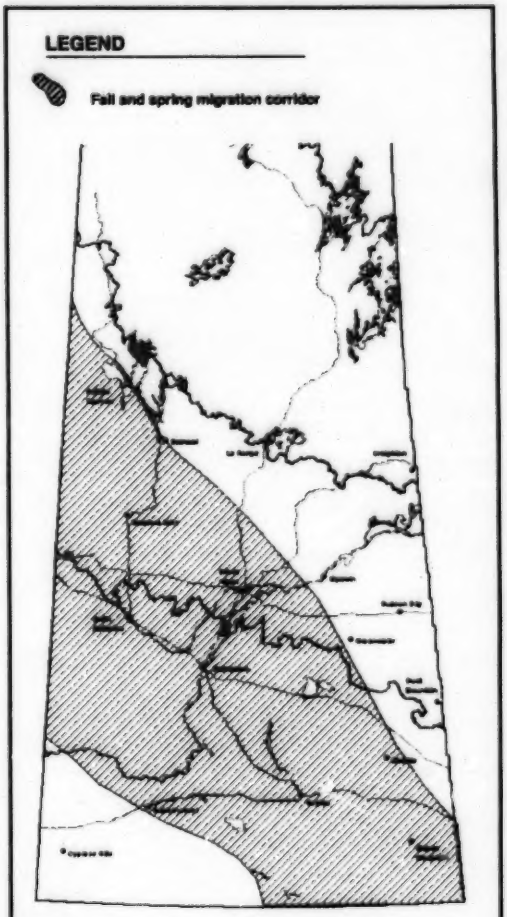
Whooping Cranes, or Whoopers as they are sometimes called, are the tallest birds in North America. They stand around 1.5 meters tall and have a wing span of more than two meters. They are snowy-white with black wing tips that can only be seen when the bird is in flight. Whooping Cranes have a long neck, long pointed black bill and long thin black legs and feet. Their head has a black patch on the back, while the top and cheeks are bare and red. The eyes are bright yellow and the tail feathers droop. At maturity, Whoopers weigh approximately 6.5 kilograms.

A Whooping Crane in flight can be identified by its long neck that extends forward and long legs that trail straight behind. They often glide on thermal drafts (warm air currents) to conserve energy. If the conditions are right, these birds can stay aloft for up to 10 hours.

Similar species

Whooping Cranes can be distinguished from our other large water birds, herons, by their color and outstretched necks when flying. Herons' necks are folded back into an s-shape.

Young Whooping Cranes are cinnamon-white in colour and during their first migration they may be mistaken for Sandhill Cranes (*Grus canadensis*). Adults are very distinct in colour.



Whooping Crane migration corridor in Saskatchewan
(Grus americana)
(adapted from Smith, Alan R., Atlas of Saskatchewan Birds, 1996 and the Recovery of Nationally Endangered Wildlife, 1994.)

Status

Whooping Cranes were listed as endangered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) in 1978. It is believed the population of Whooping Cranes never exceeded 1,500 individuals. About 90 per cent of that population disappeared between 1870 and 1900 as settlers moved westward. By 1912, there was an estimated 80 to 100 Whooping Cranes left in the wild.

Whooping Cranes have been protected in Canada under the *Federal Migratory Birds Convention Act* of 1917. Protection did not save the species from declining. By 1942, only 16 Whoopers remained in the wild.

Largely due to public awareness, major conservation efforts in the 1970's resulted in the population rising from 49 cranes in 1974 to 70 cranes in 1977. Today, the wild population is estimated at 279 Whooping Cranes. This population consists of 188 migrating cranes and 91 non-migrating cranes located in Florida. In 2000, the total North American population (captive and wild) is estimated at 388 individuals.

Habitat

Breeding habitats consist primarily of marshy or swampy areas located on prairies or in aspen parkland. Wood Buffalo National Park, in the Northwest Territories, is the only known breeding habitat for the main population of Whooping Cranes. The area in the park is poorly drained and covered with wetlands of varying shape, size and depth.

These Whooping Cranes winter in the Aransas National Wildlife Refuge on the gulf coast of Texas. The Wildlife Refuge is made up of approximately 9,106 hectares (22,500 acres) of salt flats and marshes.

During migration, a variety of habitats are used, but Whoopers are often found in grainfields near sloughs and ponds. Whooping Cranes always roost (rest or sleep) in a wetland by standing in shallow water, to avoid terrestrial predators. They choose sites with a wide-open view and away from human disturbances.

Since Whooping Cranes prefer wetland habitats, their diet consists mainly of aquatic animals. They eat a variety of foods including snails, minnows, frogs, crabs, clams, crayfish, small fish, plant tubers, roots, waste grain, wild fruits, rodents and lizards.

Life Cycle

Return and courtship

Whooping Cranes arrive in Wood Buffalo National Park in late April. Experienced breeding pairs are usually first to arrive and often return to the same area each year. Once on the nesting grounds, adults begin their courtship "dance" of bobbing, weaving and calling to their mates. It is estimated that Whooping Cranes begin breeding around four to five years of age. They mate for life but will choose another mate if one of the pair dies.

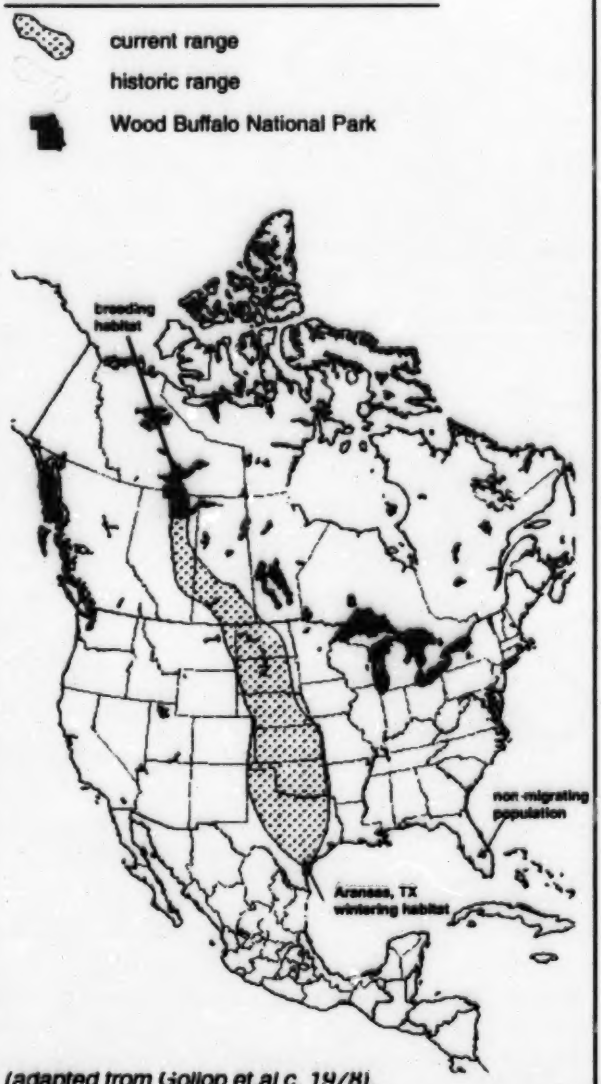
Nests

Most nests are located in marshes or ponds with water around 25 centimeters deep. Whooping Cranes will rarely build a nest on firm ground. Most often it is in dense stands of bulrushes (*Scirpus spp.*). The nest itself is made from hollow-stemmed bulrushes, sedges (*Carex spp.*) and cattails (*Typha spp.*). The nest measures approximately one meter across and is situated 13 centimeters above water level.

Historic and Current Ranges of the Whooping Crane

(Grus americana)

LEGEND



(adapted from Gollop et.al c. 1978).

Eggs and Incubation
Whooping Cranes usually lay two eggs in late April or early May. Both eggs will hatch but usually only one chick survives while the other most likely dies of starvation. The eggs are large, smooth and somewhat glossy. They are olive-brown to light buff with spots of purplish-brown. Incubation takes 29 to 30 days and both parents share the responsibility. One bird sits on the nest while the other feeds. This cooperation between the parents results in very few eggs being lost to predators.

Chicks
The eggs hatch between the last week in May and the first week in June. The young are reddish-orange in colour and are fed almost continuously. The parents gather larval forms of dragonflies, damselflies and mayflies to feed their young. Young cranes are also known to eat snails, small clams, water beetles, frogs and fish.

Migration
Young Whoopers start making short flights after about 80 days. Around the third week in September they are ready to make the 3,500 kilometer flight to Texas. Whooping Cranes learn migration from their parents, so family groups tend to stay together for the first few migrations.

Whoopers begin arriving on the wintering grounds in Aransas National Wildlife Reserve between late October and mid-November. Birds that did not breed or that were unsuccessful in breeding are usually the first to arrive. Disputes over territory are common in early fall but once settled, cranes spend the winter feeding and resting.

The Whooping Crane's primary migration route cuts across northeastern Alberta, southwestern Saskatchewan, through Montana, North Dakota, South Dakota, Nebraska and Oklahoma to Texas. Whooping Cranes migrate by themselves, as a pair, or in small groups of up to 11 birds. They travel in the daytime and make regular stops at night to feed and rest. Some stops last only a few days, but Whooping Cranes have been known to stay up to four weeks at the same location in Saskatchewan.

Limiting Factors
The *loss of a suitable habitat* appears to be the main reason for the decline of the Whooping Crane population. As settlers moved westward, wetlands were drained and cleared for human development. Habitat along the Whooper's migration route was probably affected more than its wintering and breeding grounds.

Whooping Cranes were once shot for their feathers and meat. Since they have been protected, most deaths have occurred during migration. *Migration* presents a variety of hazards to these birds. Collision with power lines is the main cause of death for Whooping Cranes. Since 1956, 19 Whooping Cranes have been killed or seriously injured after running into power lines. Other hazards facing the bird include *predation, disease and illegal shooting.*

Wintering range potentially at risk: The original wild, migrating population of Whooping Cranes winters in Aransas off the Gulf of Mexico. This area is one of the heaviest used waterways for transporting oil and gasoline products. A single spill could wipe out the entire population of wild Whooping Cranes by contaminating the species and its habitat. Biologists are trying to establish several other separate migrating populations since this wintering habitat site is so vulnerable to destruction.

Severe weather or climate change are other factors that could affect the survival of wild Whooping Cranes. A hurricane in the Aransas site or a severe drought in Wood Buffalo National Park could dramatically reduce the wild population of Whooping Cranes or wipe it out all together.

There are also *natural factors* limiting the population of Whooping Cranes. Although Whooping Cranes have a relatively long life span (24 years), they do not reach sexual maturity until at least three years of age. Once they are sexually mature, a pair usually produces only one chick a year. Short, northern summers limit the chance of survival for a second clutch of eggs if the first clutch fails. Finally, because the main population of migrating Whooping Cranes have only one breeding ground and one wintering ground, the survival of the species relies on the survival of these habitats.

Recovery Actions
Protected areas
Recovery of the species began in 1937 with the establishment of the Aransas National Wildlife Refuge. This refuge assured the protection of the wintering habitat. The breeding grounds of the Whooping Crane were not discovered until 1954, but Wood Buffalo National Park was established in 1922. This coincidence most certainly saved the Whooping Crane from extinction.

Captive breeding
In 1967, efforts began to establish a captive flock of Whooping Cranes. The establishment of a captive breeding program breeds the additional cranes necessary for reintroduction into the wild and saves the species from extinction. Three captive breeding populations are currently established. The Patuxent Wildlife Research Center in Maryland is currently home to 47 cranes. The International Crane Foundation in Wisconsin has 30. The newest facility is located at the Calgary Zoo and is currently home to 21 Whooping Cranes.

Establish additional populations
In 1975, there were attempts to establish additional wild populations of Whooping Cranes. Scientists removed one of the two eggs from the nests in Wood Buffalo National Park. The eggs were then placed in Sandhill Crane nests at Grays Lake National Wildlife Refuge in Idaho. The

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Sandhills acted as foster parents to the young Whoopers and raised them as their own. By 1985, there were 33 Whooping Cranes that made the fall migration from Idaho to New Mexico. The recovery effort appeared to be successful until the Whooping Cranes reached breeding age. Studies indicated that the Whooping Cranes raised by Sandhill Cranes failed to find a partner and breeding never took place. In February of 2000, only three Whooping Cranes remained with the flock.

In 1993, a non-migratory population was established in Kissimmee Prairie, Florida. A group of 14 Whooping Cranes was hatched and released in January of 1993. Since then, 175 captive-bred Whooping Cranes have been released and today the population consists of approximately 80 individuals. Most of the deaths were a result of predation from alligators and bobcats. The oldest birds have just reached breeding age. The cranes nested and the first chick hatched in March of 2000.

Recovery goals

Currently, recovery goals are to maintain a minimum of 40 breeding pairs of Whooping Cranes in Wood Buffalo National Park. The ultimate goal is to have the population exceed 1,000 individuals and improve the bird's status from endangered to threatened. Plans are underway to establish two separate populations with a minimum of 25 breeding pairs each. The first population is already established in Kissimmee, Florida and, in the fall 2000, the other population was led from Wisconsin to Florida by ultralight aircraft for the winter. These actions would ensure long term survival of the species.

Success

The recovery of the Whooping Crane has been moderately successful considering today's population came from just 16 individuals in 1942. The recovery is far from over and protection and management of this species must continue to reach the desired population of Whooping Cranes.

If you spot a Whooping Crane, you can help monitor the species by calling Canadian Wildlife Service's Whooping Crane Hotline at (306) 975-5595.

Selected References

Please contact your local library or visit the Internet sites below for more information on the Whooping Crane.

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May, 2001

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